

[0234] The method for operating the first electronic device may further include the operation of, if a specific application is executed, forming a short-range communication link with the second electronic device and recognizing the movement of the first electronic device. The specific application may include an application displaying a map.

[0235] A method for operating an electronic device according to various exemplary embodiments of the present disclosure may acquire an azimuth angle of the electronic device dependent on a heading direction using sensors. The sensors may be a geomagnetic sensor, an acceleration sensor, a gyro sensor, etc. For example, a first electronic device not equipped with a geomagnetic sensor may receive geomagnetic sensor information from a second electronic device equipped with the geomagnetic sensor, and process the received output of the geomagnetic sensor of the second electronic device based on a heading direction of the first electronic device and generate azimuth angle information dependent on the heading direction of the first electronic device.

[0236] The first electronic device may be a wearable device, and the second electronic device may be a mobile phone. The heading directions of the first electronic device and the second electronic device may be the same direction. In this case, there may be an advantage that, because the wearable device does not need to mount the geomagnetic sensor, it may save the cost, and the wearable device does not need to consider items (e.g., a magnetic field generated within an electronic device) to consider when mounting the geomagnetic sensor.

[0237] While the disclosure has been shown and described with reference to certain embodiments thereof, it will be understood by those skilled in the art that various changes in form and details may be made therein without departing from the spirit and scope of the disclosure. Therefore, the scope of the preset disclosure is defined, not by the detailed description but, by the appended claims and there equivalents.

What is claimed is:

1. A method for operating a first electronic device, the method comprising:

detecting a movement of the first electronic device;
receiving direction information of a second electronic device; and
determining an azimuth angle of a heading direction of the first electronic device based on the received direction information of the second electronic device.

2. The method of claim 1, wherein the direction information of the second electronic device comprises an azimuth angle of a heading direction of the second electronic device, which is obtained based on the heading direction of the second electronic device and a magnetic north direction.

3. The method of claim 1, wherein detecting the movement of the first electronic device comprises acquiring movement information of the first electronic device through at least one sensor of the first electronic device.

4. The method of claim 3, wherein the movement information comprises at least one of heading direction information of the first electronic device, posture information of the first electronic device, and rotation information of the first electronic device.

5. The method of claim 4, wherein determining the azimuth angle of the heading direction of the first electronic device comprises determining the azimuth angle of the

heading direction of the first electronic device based on the heading direction information of the first electronic device and the received direction information of the second electronic device.

6. The method of claim 5, further comprising determining the azimuth angle of the heading direction of the first electronic device in consideration of at least one of the posture information of the first electronic device, and the rotation information of the first electronic device.

7. The method of claim 6, further comprising, when the movement of the first electronic device is detected while determining the azimuth angle of the heading direction of the first electronic device, correcting the azimuth angle of the heading direction of the first electronic device based on the detected movement of the first electronic device.

8. The method of claim 1, further comprising displaying information corresponding to the determined azimuth angle of the heading direction of the first electronic device.

9. The method of claim 1, further comprising the operation of, before detecting the movement of the first electronic device, determining whether the first electronic device is worn, using a wearing detection sensor of the first electronic device

wherein the first electronic device is a wearable device.

10. The method of claim 9, wherein the wearing detection sensor comprises at least one of a proximity sensor, a heart-beat sensor, a touch sensor, and a medical sensor.

11. The method of claim 1, further, before detecting the movement of the first electronic device, forming a short-range communication link with the second electronic device.

12. The method of claim 11, wherein the short-range wireless communication link uses at least one of WiFi, Bluetooth (BT), Near Field Communication (NFC), and ZigBee communication schemes.

13. The method of claim 11, further comprising, forming the short-range communication link when a specific application is executed.

14. The method of claim 13, wherein the specific application comprises an application displaying a map.

15. A first electronic device comprising:

a sensor for detecting a movement of the first electronic device;
a communication unit for receiving direction information of a second electronic device; and
a processor for determining an azimuth angle of a heading direction of the first electronic device based on the received direction information of the second electronic device.

16. The device of claim 15, wherein the direction information of the second electronic device comprises an azimuth angle of a heading direction of the second electronic device, which is obtained based on the heading direction of the second electronic device and a magnetic north direction.

17. The device of claim 15, wherein the sensor acquires movement information of the first electronic device.

18. The device of claim 17, wherein the movement information comprises at least one of heading direction information of the first electronic device, posture information of the first electronic device, rotation information of the first electronic device.

19. The device of claim 15, further comprising a display for displaying information corresponding to the determined azimuth angle of the heading direction of the first electronic device.